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ENVIRONMENT

Mr. Steven Scharf, P.E.
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7015

Subject:
Results of Third Quarter 2014 Groundwater Monitoring,
Operable Unit 2, Northrop Grumman Systems Corporation and Naval Weapons Industrial Reserve Plant (NWIRP) Sites, Bethpage, New York.
(NYSDEC Site #s 1-30-003A and B)

Date:
December 3, 2014

Contact:
David Stern

Phone:
631.391.5284

Email:
david.stern@arcadis-us.com

Our ref:
NY001496. 314I.NAVI4

Dear Mr. Scharf:

On behalf of Northrop Grumman Systems Corporation (Northrop Grumman), ARCADIS is providing the NYSDEC with the validated results of Operable Unit 2 (OU2) groundwater monitoring, performed in accordance with the approved Groundwater Monitoring Plan (ARCADIS of New York, Inc. 2012) and the Public Water Supply Contingency Plan (PWSCP) (ARCADIS G&M, Inc. 2003). Table 1 summarizes OU2 remedial system performance operational data and water balance. Table 2 and 3 provide the validated analytical results of monitoring for this period. Figure 1 shows the site plan with well locations.

Please contact us if you have any questions or comments.

Sincerely,

ARCADIS of New York, Inc.

David E. Stern
Senior Hydrogeologist

Enclosures

Imagine the result

Copies:
Ed Hannon – Northrop Grumman
Fred Weber – Northrop Grumman
Walter Parish – NYSDEC Region 1
Bill Spitz - NYSDEC Region 1
Steven Karpinski – New York State Department of Health
Michael Alarcon – Nassau County Department of Health
Joseph DeFranco – Nassau County Department of Health
Lora Fly – NAVFAC Midlant Environmental
David Brayack – TetraTech NUS, Inc.
Roger Smith – Glenn Springs Holdings, Inc.
Kevin Lumpe – Steel Equities
Thomas Taccone – USEPA
Robert Alvey – USEPA
Matthew Russo – Town of Oyster Bay
Stan Carey – Massapequa Water District
Matthew Snyder – New York American Water
Charles Prucha – South Farmingdale Water District
John Reinhardt – Town of Hempstead Water District
Michael Boufis – Bethpage Water District
Anthony J. Sabino Esq. – Bethpage Water District
Lois Lovisolo – Bethpage Public Library (Public Repository)
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Table 1. Operational Summary for the On-Site Portion of the Operable Unit 2 Groundwater Remedy, Third Quarter 2014, Northrop Grumman Systems Corporation, Bethpage, New York. [1]

Identification	Quarterly Flow Rates (GPM)		Quarterly Flow Volumes (MG)			Quarterly VOC Concentrations (UG/L)		VOC Mass Removed (LBS) [7]
	Design [2]	Average [3,4,13]	Design [2]	Actual [3,4]	% of Design	TCE [5]	TVOC [5,6]	Quarterly
Influent Groundwater								
Well 1 [11]	800	805	106.0	45.8	43%	730	780	299
Well 3R [12]	700	1,060	92.7	130.6	141%	270	370	395
Well 17	1,000	1,022	132.5	127.3	96%	180	230	240
Well 18	600	631	79.5	77.7	98%	55	76	48
Well 19	700	788	92.7	100.1	108%	170	200	164
Total	3,800	4,306	503	482	96%	--	--	1,146
Effluent Groundwater [8]								
Calpine	100 - 400	329	--	43.6	--	--	--	--
OXY Biosparge [10]	2 - 42	3.8	--	0.5	--	--	--	--
West Recharge Basins	1,112 - 1,455	1,306	--	173.0	--	--	0.43	--
South Recharge Basins [14]	2,231	1,996	295.6	264.4	89%	--	0.82	--
Total	--	3,635	--	482	--	--	--	--
Treatment Efficiencies [9]								
Tower 96 System Efficiency:	99.2%							
Tower 102 System Efficiency:	>99.9%							

See footnotes on next page

Table 1. Operational Summary for the On-Site Portion of the Operable Unit 2 Groundwater Remedy, Third Quarter 2014, Northrop Grumman Systems Corporation, Bethpage, New York. (1)

Notes:

(1) Quarterly reporting period: July 1, 2014 through September 30, 2014

(2) "Design" flow rates were determined for the five remedial wells and for the South Recharge Basins based on computer modeling (ARCADIS G&M, Inc. 2003c, modified in April 2005). Flow rates for Calpine, OXY Biosparge and West Recharge Basins are typical flow rates and are provided for reader information. "Design" flow volumes represent the volume of water that should be pumped/discharged during the reporting period and is calculated by multiplying the design rate by the reporting period duration.

(3) "Average" flow rates for the remedial wells represent the average actual pumping rates when the pumps are operational and do not take into account the time that a well is not operational. During this reporting period, the remedial wells operated for the following percentage of the time: Well 1 (43%), Well 3R (93%), Well 17 (94%), Well 18 (93%), and Well 19 (96%). "Actual" volumes are determined via totalizing flow meters.

(4) "Average" flow rates for the system discharges represent the average flow rate during the entire reporting period and are determined by dividing the total flow during the reporting period by the reporting period duration. The Calpine and South Recharge Basins flow volumes are determined via totalizing flow meters. The West Recharge Basin flow is calculated by subtracting the cumulative flow to the other discharges from the total influent flow. Actual flow to the recharge basins are greater than shown because storm water combines with the plant effluent prior to discharge to the recharge basins.

(5) The TCE and TVOC concentrations for the remedial wells are from the quarterly sampling event performed during this reporting period (Table 2).

(6) The TVOC concentration for the two sets of recharge basins are their respective average monthly SPDES concentration for the current quarter.

(7) TVOC mass removed for the reporting period is calculated by multiplying the TVOC concentration from the quarterly sampling event and the quantity of water pumped during the reporting period.

(8) There are five discharges for the effluent groundwater: South Recharge Basins, West Recharge Basins, Calpine, OXY Biosparge system, and minor losses (pipe loss, irrigation use). Treated water is continuously discharged to the south and west recharge basins, and is available "on-demand" to both the Calpine Power Plant (Calpine) for use as make-up water, and the biosparge remediation system operated by Occidental Chemical (OXY Biosparge).

(9) Treatment System Efficiencies are calculated by dividing the difference between the influent and effluent TVOC concentrations by the influent concentration.

(10) The flow rate and volume for OXY Biosparge (Occidental Chemical) were estimated based on the average pumping rate calculated from data from April 2007 through March 2012.

(11) At various times in the 3rd Quarter of 2014, the totalizing flowmeter at Well 1 was malfunctioning. During the times when the flowmeter was malfunctioning, the total flow was calculated by taking the difference in the Tower 96 Influent and the Well 3R totalizing flowmeter between weekly readings. When the flowmeter was functioning, the total flow was calculated by taking the difference between weekly readings. Well 1 was offline 52 intermittent days during the 3rd Quarter due to equipment upgrades including flowmeter replacement. Well 1 flowmeter is now operating properly.

(12) Well 3R was brought online in December 2013 to replace Well 3 due to decreasing specific capacity of Well 3 indicative of imminent well failure. Well 3R is undergoing a pilot test since July 14, 2014 and was pumping at an increased flow rate of approximately 1,000 gpm to increase VOC mass removal from the well.

(13) Total pumpage/recharge rates are accurate to -/+ 15% due to limitations in metering. Flowmeter calibration is scheduled.

(14) Flow to the South Basin reported for this period was below the design rate due to downtime for Well 1 (see note 12).

Acronyms:

--	Not Available or Not Applicable	GPM	gallons per minute	SPDES	State Pollutant Discharge Elimination System
TVOC	Total Volatile Organic Compounds	TCE	Trichloroethene	NG	Northrop Grumman Systems Corporation
UG/L	micrograms per liter	LBS	pounds	NYSDEC	New York State Department of Environmental Conservation
OU2	Operable Unit 2	MG	Million Gallons	VPGAC	Vapor Phase Granular Activated Carbon
		VOC	Volatile Organic Compounds	VFD	Variable Frequency Drive

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Table 2. Concentrations of Volatile Organic Compounds in Groundwater Remedial Wells, Third Quarter 2014, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (units in µg/L)	Well: / Sample ID: / Date:	WELL 1 WELL 1 9/11/2014	WELL 3R WELL 3R 9/11/2014	96 EFFLUENT 96 EFF 9/11/2014	WELL 17 WELL 17 9/11/2014	WELL 17 REP091114-EE-1 9/11/2014	WELL 18 WELL 18 9/11/2014	WELL 19 WELL 19 9/11/2014	102 EFFLUENT 102 EFF 9/11/2014
1,1,1-Trichloroethane		< 13	**1.0 J**	< 5.0	**0.53 J**	**0.53 J**	**0.72 J**	**0.42 J**	< 5.0
1,1,2,2-Tetrachloroethane		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane		**1.0 J**	**1.3 J**	< 5.0	**1.1 J**	**1.1 J**	**1.1 J**	**0.69 J**	< 5.0
1,1-Dichloroethene		**2.4 J**	**5.8**	< 5.0	**2.8 J**	**1.8 J**	**3.1 J**	**1.6 J**	< 5.0
1,2-Dichloroethane		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**0.50 J**	< 5.0
1,2-Dichloropropane		**5.7 J**	< 5.0	**0.41 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Butanone (MEK)		< 25	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone (MBK)		< 25	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-methyl-2-pentanone (MIK)		< 25	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone		< 25	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromodichloromethane		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromoform		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromomethane		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon Disulfide		< 25	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Carbon tetrachloride		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene		< 13	**0.30 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane		< 13	**1.3 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroform		**1.3 J**	< 5.0	< 5.0	**0.32 J**	**0.38 J**	< 5.0	**0.48 J**	< 5.0
Chloromethane		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,2-dichloroethene		**4.9 J**	**7.3**	**0.42 J**	**4.2 J**	**3.8 J**	**1.8 J**	**19**	< 5.0
cis-1,3-dichloropropene		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Dibromochloromethane		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Methylene Chloride		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Styrene		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Tetrachloroethene		**35**	**43**	< 5.0	**35**	**35**	**13**	**7.1**	< 5.0
Toluene		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,2-dichloroethene		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,3-dichloropropene		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloroethylene		**730 D**	**270 D**	**3.6 J**	**180 D**	**200**	**55**	**170**	< 5.0
Trichlorotrifluoroethane (Freon 113)		**3.7 J**	**4.1 J**	< 5.0	**4.2 J**	**4.3 J**	**1.4 J**	**0.96 J**	< 5.0
Vinyl Chloride		< 13	**36**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Xylene-o		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Xylenes - m,p		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total VOCs (1)		**780**	**370**	**4.4**	**230**	**250**	**76**	**200**	0

Notes:

(1) Results rounded to two significant figures.

Acronyms\Key:

Bold	Constituent detected
VOCs	Volatile Organic Compounds
µg/L	Micrograms per liter
J	Constituent value is estimated
D	Concentration is based on a diluted sample analysis
REP	Field replicate
<5.0	Compound not detected above its laboratory quanitfication limit.

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Table 3. Concentrations of Site-Related Volatile Organic Compounds in Outpost Wells, Third Quarter 2014, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in µg/L)	Well: / Sample ID: / Date:	BPOW 1-1 / BPOW 1-1 / 8/4/2014	BPOW 1-2 / BPOW 1-2 / 8/6/2014	BPOW 1-3 / BPOW 1-3 / 8/6/2014	BPOW 1-4[1] / BPOW 1-4 / 8/19/2014	BPOW 1-5[1] / BPOW 1-5 / 8/19/2014	BPOW 1-6[1] / BPOW 1-6 / 8/20/2014	BPOW 2-1 / BPOW 2-1 / 8/11/2014	BPOW 2-2 / BPOW 2-2 / 8/11/2014
1,1,1-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon tetrachloride		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroform		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,2-dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		**0.84**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Site-Related VOCs [2]		**0.84[3]**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TVOC Trigger Value [4]		**0.6**	**0.6**	**0.6**	NE	NE	NE	NE	NE

See last page for notes.

Table 3. Concentrations of Site-Related Volatile Organic Compounds in Outpost Wells, Third Quarter 2014, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in µg/L)	Well: / Sample ID: / Date:	BPOW 2-3 BPOW 2-3 8/8/2014	BPOW 3-1 BPOW 3-1 8/8/2014	BPOW 3-2 BPOW 3-2 8/18/2014	BPOW 3-3[1] BPOW 3-3 8/12/2014	BPOW 3-4[1] REP081214KM1 8/12/2014	BPOW 3-4[1] BPOW 3-4 8/12/2014
1,1,1-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon tetrachloride		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroform		< 0.50	< 0.50	< 0.50	< 0.50	**1.1**	**1.1**
cis-1,2-dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		< 0.50	< 0.50	< 0.50	< 0.50	**55**	**54**
Total Site-Related VOCs [2]		0.0	0.0	0.0	0.0	**56**	**55**
TVOC Trigger Value [4]		NE	**1.5**	**1.5**	NE	NE	NE

See last page for notes.

Table 3. Concentrations of Site-Related Volatile Organic Compounds in Outpost Wells, Third Quarter 2014,
Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

Notes and Abbreviations:

Samples analyzed for site related VOCs per the PWSCP (ARCADIS G&M, Inc. 2003) using USEPA Method 524.2

(1) Wells BPOW1-4, BPOW1-5, BPOW1-6, BPOW 2-3, BPOW3-3, and BPOW3-4 are currently monitored by Northrop Grumman on a voluntary basis. The screen intervals for these wells were selected by the Navy based on data obtained from vertical profile borings VP-127 (BPOW-1 cluster), VP-130 (BPOW 2-3) and VP-128 (BPOW-3 cluster).

(2) Site-related VOCs were established in the Public Water Supply Contingency Plan (PWSCP) (ARCADIS G&M, Inc. 2003).

(3) The TVOC Trigger Value for Cluster 1 was initially exceeded on April 23, 2004; confirmatory sampling and reporting was conducted as per the PWSCP (ARCADIS G&M, Inc. 2003).

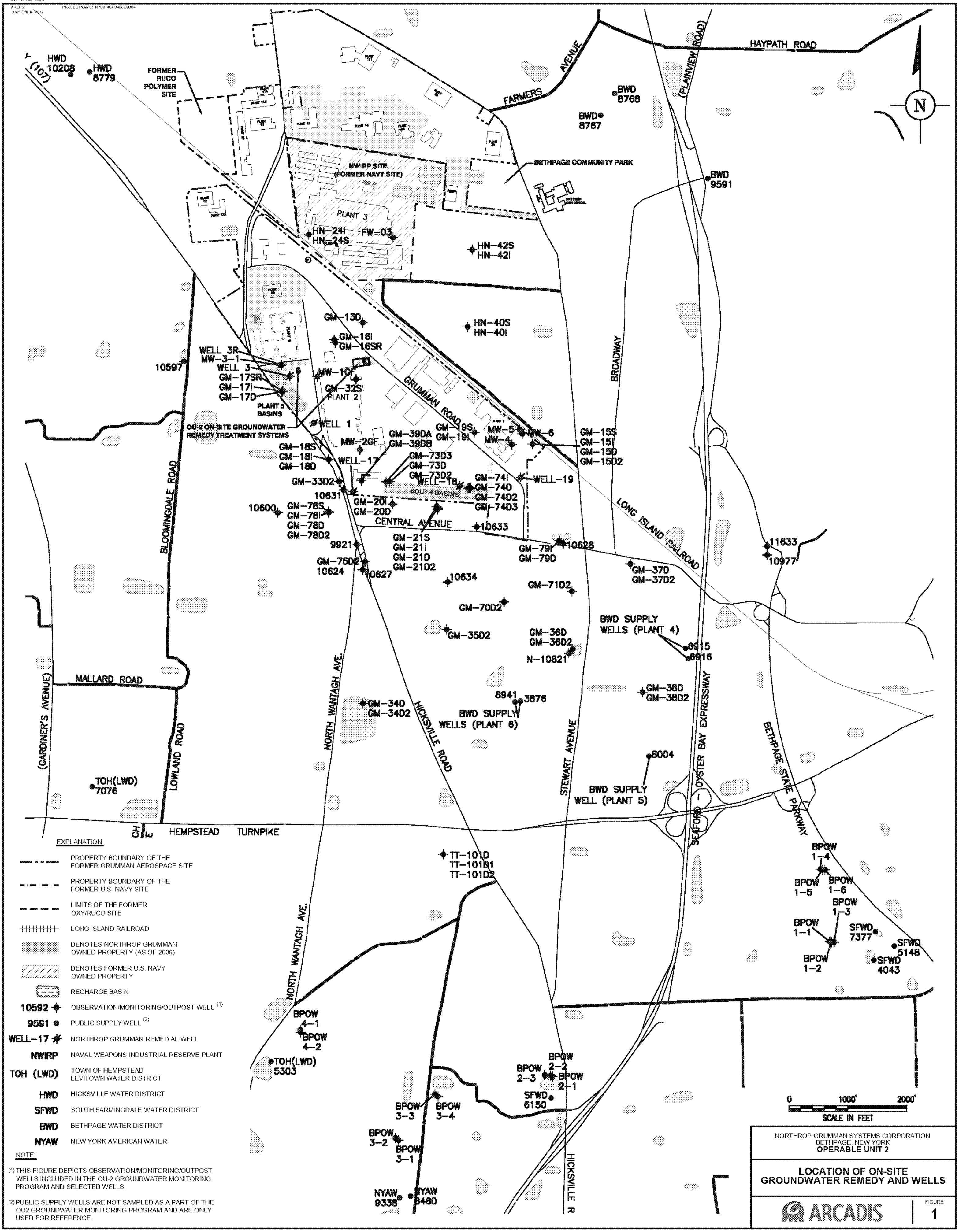
(4) TVOC Trigger Values were established for Wells BPOW1-1, BPOW1-2, BPOW1-3, BPOW3-1, BPOW3-2, BPOW4-1, and BPOW4-2 in the PWSCP (ARCADIS G&M, Inc. 2003). Established trigger values have been previously exceeded (except for BPOW 3-1 and BPOW 3-2) and no longer apply as the goal of the PWSCP has been met. Wells BPOW 4-1 and BPOW 4-2 were not sampled this round due to ongoing NAVY abandonment of these wells and installation of replacement wells.

Results rounded to two significant figures.

Bold value indicates constituent detected.

NE	Not Established
TVOCs	Total Volatile Organic Compounds
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds
µg/L	micrograms per liter
<0.5	Compound not detected above its laboratory quantification limit.

CITY:MELVILLE DIV/GROUP:ENV DB:ALS LD: PIC: PM:CSG TM:DS LYR:ON=*;OFF=*REF*
\\ARCADIS-US\officedata\WhitePlains-NY\WHI_CAD\VOL2\ENVCAD\WhitePlains-NY\ACT\NY001496\0312\GWM\4\OU2 Site location-2.dwg LAYOUT: 1 SAVED: 5/15/2014 3:39 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: ARCADIS_MELVILLE.CTB PLOTTED: 5/15/2014 3:40 PM
BY: PETRIE, RICH



XREFS: PROJECTNAME: NY001464.0408.00004
Xref_Offsite_2012
HWD 10208
HWD 8779
FORMER RUCO POLYMER SITE
HAYPATH ROAD
(PLAINVIEW ROAD)
FARMERS AVENUE
BWD 8768
BWD 8767
N
NWIRP SITE (FORMER NAVY SITE)
BETHPAGE COMMUNITY PARK
BWD 9591
PLANT 3
HN-24I
HN-24S
FW-03
HN-42S
HN-42I
GM-13D
HN-40S
HN-40I
GM-16I
GM-16SR
WELL 3R
MW-3-1
WELL 3
10597
GM-17SR
GM-17I
GM-17D
PLANT 5 BASINS
MW-1CF
GM-32S
PLANT 2
GRUMMAN ROAD
BROADWAY
OU-2 ON-SITE GROUNDWATER REMEDY TREATMENT SYSTEMS
WELL 1
GM-19S
GM-19I
MW-5
MW-4
MW-6
GM-15S
GM-15I
GM-15D
GM-15D2
MW-2GF
GM-39DA
GM-39DB
GM-18S
GM-18I
GM-18D
WELL-17
GM-73D3
GM-73D
GM-73D2
WELL-18
GM-74I
GM-74D
GM-74D2
GM-74D3
WELL-19
GM-33D2
10631
SOUTH BASINS
LONG ISLAND RAILROAD
10600
GM-78S
GM-78I
GM-78D
GM-78D2
GM-20I
GM-20D
CENTRAL AVENUE
10633
BLOOMINGDALE ROAD
GM-21S
GM-21I
GM-21D
GM-21D2
9921
GM-75D2
10624
10627
GM-79I
GM-79D
10628
11633
10977
GM-37D
GM-37D2
10634
GM-71D2
GM-70D2
BWD SUPPLY WELLS (PLANT 4)
GM-35D2
GM-36D
GM-36D2
N-10821
6915
6916
MALLARD ROAD
GM-38D
GM-38D2
8941
3876
GM-34D
GM-34D2
BWD SUPPLY WELLS (PLANT 6)
(GARDINER'S AVENUE)
LOWLAND ROAD
NORTH WANTAGH AVE.
HICKSVILLE ROAD
STEWART AVENUE
SEAFORD - OYSTER BAY EXPRESSWAY
BETHPAGE STATE PARKWAY
8004
BWD SUPPLY WELL (PLANT 5)
TOH(LWD) 7076
HEMPSTEAD TURNPIKE
TT-101D
TT-101D1
TT-101D2
BPOW 1-4
BPOW 1-5
BPOW 1-6
BPOW 1-3
BPOW 1-1
BPOW 1-2
SFWD 7377
SFWD 5148
SFWD 4043
NORTH WANTAGH AVE.
BPOW 4-1
BPOW 4-2
TOH(LWD) 5303
BPOW 2-2
BPOW 2-3
BPOW 2-1
SFWD 6150
BPOW 3-3
BPOW 3-4
BPOW 3-2
BPOW 3-1
NYAW 9338
NYAW 8480
HICKSVILLE R
0 1000' 2000'
SCALE IN FEET
EXPLANATION
PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE SITE
PROPERTY BOUNDARY OF THE FORMER U.S. NAVY SITE
LIMITS OF THE FORMER OXY/RUCO SITE
LONG ISLAND RAILROAD
DENOTES NORTHROP GRUMMAN OWNED PROPERTY (AS OF 2009)
DENOTES FORMER U.S. NAVY OWNED PROPERTY
RECHARGE BASIN
10592 OBSERVATION/MONITORING/OUTPOST WELL (1)
9591 PUBLIC SUPPLY WELL (2)
WELL-17 NORTHROP GRUMMAN REMEDIAL WELL
NWIRP NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
TOH (LWD) TOWN OF HEMPSTEAD LEVITOWN WATER DISTRICT
HWD HICKSVILLE WATER DISTRICT
SFWD SOUTH FARMINGDALE WATER DISTRICT
BWD BETHPAGE WATER DISTRICT
NYAW NEW YORK AMERICAN WATER
NOTE:
(1) THIS FIGURE DEPICTS OBSERVATION/MONITORING/OUTPOST WELLS INCLUDED IN THE OU-2 GROUNDWATER MONITORING PROGRAM AND SELECTED WELLS.
(2) PUBLIC SUPPLY WELLS ARE NOT SAMPLED AS A PART OF THE OU2 GROUNDWATER MONITORING PROGRAM AND ARE ONLY USED FOR REFERENCE.
NORTHROP GRUMMAN SYSTEMS CORPORATION
BETHPAGE, NEW YORK
OPERABLE UNIT 2
LOCATION OF ON-SITE GROUNDWATER REMEDY AND WELLS
ARCADIS
FIGURE
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